greater than would be the case for uniform capillary flow along the surface.

14. The rate at which the snow is melted depends on the rate at which heat can be absorbed by the snow surface per unit area with air at the given temperature. The writer's experiments indicate that the melting constant is about 0.04 to 0.06 inch depth of water per 24 hours per degree of temperature above 32°F. Loose snow apparently absorbs heat at about the same rate as packed snow, but as the water equivalent of the former is lower, its rate of disappearance is much more rapid.

15. When snow overlies unfrozen ground, or frozen but porous and unsaturated soil, most of the water from melting percolates to the bottom of the snow layer and thence into the soil. The melting of snow or warm rain falling upon a snow cover under suitable conditions, is thus more favorable to the replenishment of ground water than would be an equal volume of rainfall on a bare surface, since in the presence of snow, surface run-off is greatly retarded and the opportunity for infiltration increased.

16. Under suitable conditions and especially in the woods where the ground is least frozen, a deep layer of snow on level ground may wholly disappear by invisible percolation without causing any surface run-off whatever. Where there is opportunity for infiltration, the melting of snow contributes more to the ground water and less to the surface run-off than would an equal volume of rain on a bare surface, and by providing a high ground-water level, the effect of the melting of snow cover may be felt for a longer time after the snow has disappeared than if an equal volume of rain had fallen at the same time.

METEOROLOGY AND SEISMOLOGY AT THE PAN AMERICAN SCIENTIFIC CONGRESS.

By C. FITZHUGH TALMAN, Professor of Meteorology.

[Dated: Weather Bureau, Washington, Jan. 20, 1916.]

In the Second Pan American Scientific Congress, which met in Washington from December 27, 1915, to January 8, 1916, inclusive, meteorology and seismology were represented by a subsection of Section II. All sessions were held in the auditorium of the Carnegie Institution.

On Tuesday morning, December 28, the Subsection on Meteorology and Seismology met in conjunction with the Subsection on Astronomy and Geodesy. Dr. R. S. Woodward, chairman of Section II, addressed the meeting, after which administrative business of the section was disposed of and a program of astronomical and geodetic papers was presented. The first separate session of the Subsection on Meteorology and Seismology was held on the afternoon of December 28.

The attendance in this subsection was gratifyingly large, and this branch of the Pan American Scientific Congress was probably more fully representative of the meteorological and seismological activities of the Americas than any scientific gathering ever before held. Owing to the length of the program, it was found necessary, after the first session, to read by title all papers the authors of which were not in attendance.

The following meteorologists and seismologists attended one or more of the sessions as members of the Congress:

Dr. C. G. Abbot, Smithsonian Institution, Washington.
Dr. H. Arctowski, New York Public Library, New York.
Prof. S. I. Bailey, Harvard College Observatory, Cambridge, Mass.
Dr. L. A. Bauer, Carnegie Institution, Washington.
E. A. Beals, U. S. Weather Bureau, Portland, Oreg.
Prof. W. R. Blair, U. S. Weather Bureau, Washington.
E. H. Bowie, U. S. Weather Bureau, Washington.
C. F. Brooks, Yale University, New Haven.
Prof. J. E. Church, jr., University of Nevada, Reno.
Dr. H. H. Clayton, Oficina Meteorológica Argentina, Buenos Aires.
Dr. I. M. Cline, U. S. Weather Bureau, New Orleans.
Prof. H. J. Cox, U. S. Weather Bureau, Chicago.
Prof. O. L. Fassig, U. S. Weather Bureau, Baltimore.
Prof. H. C. Frankenfield, U. S. Weather Bureau, Washington.
Rev. A. Galán, S. J., Woodstock College, Woodstock, Md.
Rev. M. Gutierrez-Lanza, S. J., Belén College, Habana.
Prof. A. J. Henry, U. S. Weather Bureau, Washington.
Prof. W. H. Hobbs, University of Michigan, Ann Arbor.
Prof. W. J. Humphreys, U. S. Weather Bureau, Washington.
Prof. E. Huntington, Yale University, New Haven.
Dr. T. A. Jaggar, Volcano Observatory, Hawaii.
Prof. H. H. Kimball, U. S. Weather Bureau, Washington.
Dr. C. J. Kullmer, Syracuse University, Syracuse, N. Y.
Dr. L. Landa, director general of public instruction, Honduras.
Dr. C. Lurquin, director, Observatorio Meteorológico del Instituto Médico, Sucre, Bolivia.
Prof. C. F. Marvin, chief, U. S. Weather Bureau, Washington.
Ing. J. C. Millás y Hernández, subdirector of the National Observatory of Cuba, Habana.
Dr. F. E. Nipher, Washington University, St. Louis.
W. G. Reed, Office of Farm Management, Department of Agriculture, Washington.
Rev. S. Sarasola, S. J., director, Observatorio del Colegio de Montserrat, Cienfuegos, Cuba.
Prof. J. Warren Smith, U. S. Weather Bureau, Columbus.
Dr. W. F. G. Swann, Carnegie Institution, Washington.
Prof. C. F. Talman, U. S. Weather Bureau, Washington.
A. E. Thiessen, U. S. Weather Bureau, Salt Lake City.
Rev. F. A. Tondorf, S. J., Georgetown University, Washington.
J. F. Voorhees, U. S. Weather Bureau, Knoxville.
Prof. R. DeC. Ward, Harvard University, Cambridge, Mass.
E. L. Wells, U. S. Weather Bureau, Boise.
Dr. R. S. Woodward, president, Carnegie Institution, Washington.

The attendance included, in addition to these persons, several officials and employees of the Weather Bureau and others who were not members of the Congress.

A brief account of the proceedings follows:

SECOND PAN AMERICAN SCIENTIFIC CONGRESS, WASHINGTON, DECEMBER 27, 1915–JANUARY 8, 1916.

MINUTES OF SUBSECTION IIB, METEOROLOGY AND SEISMOLOGY.

First session, Tuesday, December 28, 1915, 2:30 p. m.—The meeting was called to order by Prof. C. F. Marvin, chairman of the subsection, who delivered an address of welcome.

The following papers were read:*

*"Investigations on the prediction of barometric variations." Rev. S. Sarasola, S. J.

Discussion by Messrs. Lurquin and Frankenfield.

*"Origin and course of West Indian hurricanes." J. C. Millás.

Discussion by Messrs. Sarasola and Gutierrez-Lanza.

"Thunderstorms." W. H. Alexander. (Read by Prof. A. J. Henry.)

Discussion by Messrs. Church, Clayton, and Peabody (of Section D).

"Agricultural meteorology." Prof. J. Warren Smith.

Discussion by Messrs. Church, Frankenfield, and Voorhees.

Second session, Wednesday, December 29, 1915, 2:30 p. m.—Prof. C. F. Marvin, presiding.

Dr. Woodward announced the membership of the committee on resolutions, which he had been authorized to appoint at the first general meeting of the section, viz: Dr. Woodward (chairman), Prof. Marvin (U. S. A.), Sr. Millás (Cuba), Dr. Clayton (Argentina), and Prof. Morandi [1] (Uruguay).

*Papers whose titles are preceded by an asterisk are published in abstract on another page of this REVIEW. Some of the papers presented will appear in full in later issues of the REVIEW—C. A., jr.

[1] Prof. Morandi was found not to be in attendance at the congress, and was replaced by Dr. Lurquin (Bolivia.)—C. F. T.